

REMARKS

Applicants have considered the outstanding official action. It is respectfully submitted that the claims are directed to patentable subject matter as set forth below.

Applicants confirm the election to prosecute in the present application the claims of Group I, i.e., claims 63-85, drawn to a product. However, applicants reserve the right to file a divisional application(s) on the non-elected subject matter of Group II, i.e., claims 86-115, drawn to a process; and Group III, i.e., claims 116-124, drawn to an apparatus, under the provisions of 35 U.S.C. §121. Claims 86-124 have been withdrawn but are retained herein and amended to conform to the elected claims in the event of rejoinder of these claims.

The Examiner states that the listing of patent documents in the specification is not considered a proper information disclosure statement since such must be submitted in a separate paper. Applicants note that the information disclosure statement filed September 1, 2006 lists all patent documents identified in the specification or a corresponding equivalent thereto, i.e., WO 97/08386

mentioned on page 2 corresponds to U.S. Patent No. 5,840,404. Thus, these documents were made of record and are marked by the Examiner as having been considered as shown in the attachment to the office action mailed January 26, 2009.

The disclosure is objected to based on the subheadings utilized therein. The specification has been amended to use subheadings in accordance with U.S. patent practice. Withdrawal of the objection is requested.

Claims 63-85 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite on the basis as set forth at pages 5-6 of the official action.

With regard to claim 63, the Examiner asserts that the word "random" denotes complete disorder and is inconsistent when used in tandem with the word "pattern". Applicants respectfully disagree since the word "random" is not used to refer to the manner in which the decorative elements of one ply are arranged. The arrangement of the protuberances of the decorative elements are according to a pattern, which is clearly not a random arrangement. Rather, the meaning of the referred to language of claim 63 is that the pattern of one ply is not in phase with the pattern of the other ply. In other words, the two patterns of plies V1

and V2 do not match each other, but rather said two patterns are mutually positioned in a random way. However, in order to move prosecution forward, claim 63 has been amended to clarify this feature. Claim 63 now provides that the first and second decorative elements are distributed with respect to each other so that decorative elements of one pattern do not damage decorative elements of another pattern. Support is present in the specification at page 10, lines 2-11.

Further as to claim 63, applicants do not understand the Examiner's objection to the relationship between the decorative elements and the protuberances. A first pattern is composed of decorative elements which have a density of no more than 3 elements/cm<sup>2</sup>. Each of the decorative elements are in turn formed of at least one protuberance. For example, as shown in Figures 4 and 5 of the application, E<sub>1</sub> denotes first decorative elements on an outer surface of a turn of roll R and E<sub>2</sub> denotes second decorative elements on the inner surface of a turn of roll R. E<sub>1</sub> is composed of multiple protuberances P<sub>1</sub> to provide the sun pattern illustrated (see page 11, lines 20-33), whereas E<sub>2</sub> is composed of a single protuberance to provide the cloud pattern. Accordingly, the claim language is

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consistent within itself and with the description set forth in the specification.

As to claim 64, applicants have amended claim 64 to provide proper antecedent basis. Support for the language utilized is at page 4, lines 19-21, of the specification.

As to claim 69, applicants have amended claim 69 to delete the words "with a geometrical form". As to the objection to the "height" of the protuberances being ambiguous because no direction of the "height" is indicated, applicants respectfully submit that such further limitation is not required since "height" is definitive regardless of direction. By definition (see attached page 385 of Webster's Seventh New Collegiate Dictionary), "height" is the distance between the bottom and the top of something standing upright or the extent of elevation above a level. Accordingly, "height" is a defined distance regardless of direction and, thus, claim 69 is definite with respect to the term "height".

As to claim 83, applicants have amended claim 83 to depend upon claim 66 to provide antecedent basis.

As to claim 84, claim 84 has been amended to clarify the language.

As to claim 85, applicants submit that claim 85 is definite. By definition (see attached page 62, Webster's Seventh New Collegiate Dictionary), "axis" is a straight line about which a body or geometric figure rotates or may be supposed to rotate. Accordingly, the claimed axis of the roll is along the line of rotation and the decorative elements are along a straight line parallel thereto. In order to move prosecution forward, claim 85 has been amended to utilize alternative wording.

Accordingly, applicants submit that the claims are definite within the meaning of 35 U.S.C. §112, second paragraph. Withdrawal of the §112 rejection is requested.

The outstanding rejections based on art are as follows:

- (1) Claims 63-68, 76, 79-82 and 84-85 under 35 U.S.C. §102(b) over U.S. Patent No. 6,599,614 B1 (Roussel);
- (2) Claims 69-74 under 35 U.S.C. §103(a) over Roussel in view of U.S. Patent No. 6,106,928 (Laurent) and in further view of U.S. Patent No. 6,755,928 B1 (Biagiotti);

- (3) Claim 75 under 35 U.S.C. §103(a) over Roussel in view of U.S. Patent Application Publication No. 2005/0034828 A1 (Graff);
- (4) Claims 77-78 under 35 U.S.C. §103(a) over Roussel in view of U.S. Patent No. 6,221,211 B1 (Hollenberg); and
- (5) Claim 83 under 35 U.S.C. §103(a) over Roussel in view of Biagiotti.

Claim 63 is the sole elected independent claim.

Roussel is the only applied reference as to the §102 rejection and is the primary reference as to each of the rejections under 35 U.S.C. §103 of dependent claims. Applicants respectfully submit that Roussel does not teach or suggest the claimed web material.

According to claim 63, the first decorative elements and second decorative elements each have a density of no more of 3 elements/cm<sup>2</sup>, i.e., equal to or less than 3 elements/cm<sup>2</sup>. Roussel teaches at column 3, lines 12-13, that at least one of the external plies has a pattern density exceeding (i.e., more than) 30 protrusions/cm<sup>2</sup>.

Further, according to the second to last paragraph of claim 63, the decorative elements, and thus the patterns thereof, are distributed with respect to one another so that

decorative elements of one pattern do not damage decorative elements of another pattern. The decorative elements therefore are out of phase with each other when the plies are joined. Roussel, however, teaches that gluing is obtained by pressing the protrusions of one ply against the protrusions of the other ply. The two plies 2 and 3 are bonded together by laminating them in the nip 63. As shown in Figure 1 of Roussel, glue is applied in the position where protrusions 33 and 11 of plies 2 and 3 face each other. This requires that the protrusions on the plies 2 and 3 are not randomly arranged one with respect to one another, but rather that the protrusions correspond to one another, i.e., are in phase one with the other.

As shown for example in Figures 3 and 7 of the captioned application, applicants' claimed web material includes bonding in correspondence with the protuberances P1 forming the first decorative elements on the first ply V1 and/or in correspondence with the protuberances P3 forming the decorative elements on the ply V2. The protuberances P1 and P3 defining the decorative elements on the two plies are randomly arranged in the sense that there is no necessary mutual correspondence between the protuberances P1 and P3.

The different density of the decorative elements of applicants' claims with respect to the protuberances of Roussel is not a simple choice of design, but rather corresponds to the fact that the protuberances on plies V1 and V2 of the captioned application have the purpose of providing the web with a double face decoration, in which the protuberances of one side form a decoration different from that of the opposite side of the final web product N. Protuberances having a density higher than  $30/\text{cm}^2$  as taught by Roussel are for imparting functional features to the web.

Additionally, since the decorative elements of the first ply are different from one another and randomly arranged one with respect to one another, it is not possible to join and bond the opposite outer plies V1 and V2 at corresponding protuberances as disclosed in Roussel. For this reason, the patterns of the decorative elements are staggered one with respect to one another as shown in Figures 3 and Figure 7.

Accordingly, Roussel does not teach each and every feature of the claimed web material and, thus, does not anticipate the claims within the meaning of 35 U.S.C. §102. Withdrawal of the §102 rejection is requested.



Further, with respect to the rejections of dependent claims under 35 U.S.C. §103, Roussel does not suggest the claimed web material. Roussel discloses a process and a product in which the plies are bonded using the tip-to-tip technique as set forth in column 2, lines 65-67. This requires that the plies forming the web be bonded in a lamination nip formed between embossing rollers (51 and 61 in Figure 2 of Roussel) provided with mutually facing protrusions, i.e., protrusions which in passage through the lamination nip 63 are pressed one against the other with the plies therebetween.

Applicants' claimed web material is based on an entirely different technique which emphasizes the difference in structure. For example, as shown in Figure 1 of the captioned application, an outer upper ply V1 is embossed between pressure roller 7 and embossing cylinder 5 to form in the ply the first decorative elements. This ply is then joined by adhesive applied by applicator 11 to the web formed by second outer ply V2 and intermediate ply V3. These two plies are bonded one to another in the embossing unit 23, with the use of adhesive applicator 31.

In both units 3 and 23, bonding of the plies is obtained by pressing the plies together in a nip formed

between a pressure roller (9 in the unit 3 and 27 in the unit 23) and a corresponding embossing cylinder (5 in the embossing unit 3 and 25 in the embossing unit 23). Those two embossing cylinders 5 and 25 generate the decorative pattern on ply V1 (cylinder 5) and on ply V2 (cylinder 25).

In the alternative embodiment of Figure 7, the third ply V3 is joined to the first ply V1 and bonding is obtained by applying adhesive by applicator 11.

In both of the embodiments (Figure 3 and 7), however, there are adhesive-bonded areas in correspondence of the decorative elements P1 on ply V1, corresponding to flattened areas (or areas devoid of decorative elements) of the second ply V2, a structure which is clearly different from that of Roussel, in which the gluing spots are necessarily placed in a position where mutually facing protrusions (i.e., tip-to-tip) of the outer plies are provided. It is noted that claim 63 has been amended to provide that the first ply and the second ply are adhesive bonded to one another at least at areas where the first adhesive is applied and that in such areas, the second ply is devoid of any protuberance or has flattened protuberances. This distinction, in combination with the claimed densities of the decorative elements and the

staggered distribution of the first decorative elements with respect to the second decorative elements, clearly distinguish the claimed web material over the web material disclosed in Roussel.

It is noted that two new independent claims 125 and 126 have been added which are more specifically directed to the two embodiments of Figures 3 and 7. Favorable consideration of these additional claims is requested.

As to the secondary references applied in combination with Roussel as to dependent claims (i.e., Laurent, Biagiotti, Graff and Hollenberg), each are relied on for teaching further elements of the dependent claims. The secondary references do not make up for the shortcomings of Roussel. For example, Laurent requires at least one pattern to include protrusions at a rate of "at least 30/cm<sup>2</sup>" (see column 3, lines 25-41); Biagiotti teaches rollers having points in a density of 10 to 100 points/cm<sup>2</sup> (see column 8, lines 41-45); Graff teaches first and second zones wherein the second zone includes protrusions present in a density which "exceeds 30 protrusions/cm<sup>2</sup>" (see page 1, paragraph 0017); and Hollenberg does not disclose patterns based on protrusions of a particular density, but rather

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teaches tissue having two or more plies containing colored or patterned indica (see column 1, lines 40-43).

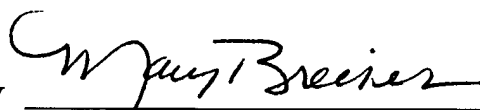
Accordingly, applicants respectfully submit that Roussel either alone or in combination with the secondary references, does not teach or suggest applicants' claimed web material within the meanings of 35 U.S.C. §102 and §103, respectively. Withdrawal of the §102 and §103 rejections is requested.

Reconsideration and allowance of the claims are application is respectfully urged.

Respectfully submitted,

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Attachment - Webster's Seventh New Collegiate Dictionary,  
Title Pages and Pages 62 And 385

# Webster's Seventh New Collegiate Dictionary

*A Merriam-Webster*

REG. U.S. PAT. OFF.

BASED ON  
WEBSTER'S  
THIRD  
NEW INTERNATIONAL  
DICTIONARY



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**away** \ə-ˈwā\ *adv* 1: on the way: ALONG (get ~ early) 2: from this or that place: HENCE, THENCE (go ~) 3 a: in another place b: in another direction 4: out of existence; to an end (echoes dying ~) 5: from one's possession (gave ~ a fortune) 6 a: UN-INTERRUPTEDLY, ON (clocks ticking ~) b: without hesitation or delay 7: by a long distance or interval: FAR (~ back in 1910)

**away** *adj* 1: absent from a place: GONE 2: DISTANT (a lake 10 miles ~) 3 a: played on an opponent's grounds (home and ~ games) b of a golf ball: lying farthest from the cup and to be played first c baseball: OUT (two ~ in the 9th) — **away-ness** *n*

**awe** \ə-ˈwē\ *n* [ME, fr. ON *agi*: akin to OE *ege* awe, Gk *achos* pain] 1 *obs*: DREAD, TERROR 2 *archaic*: the power to inspire dread 3 a: profound and reverent fear inspired by deity b: abashed fear inspired by authority or power c: fearful veneration inspired by something sacred or mysterious d: reverent wonder tinged with fear inspired by the sublime

**awe** *vt* 1: to inspire with awe 2: to control or check by inspiring with awe

**awea-ry** \ə-ˈwi(ə)r-ē\ *adj*: WEARIED

**aweath-er** \ə-ˈweθ-ər\ *adv*: on or toward the weather or windward side

**aweigh** \ə-ˈwā\ *adj*, of an anchor: just clear of the ground and hanging perpendicularly

**awe-less** or **aw-less** \ə-ˈlēs\ *adj* 1: feeling no awe 2 *obs*: inspiring no awe

**awe-some** \ə-ˈsəm\ *adj* 1: expressive of awe 2: inspiring awe — **awe-some-ly** *adv* — **awe-some-ness** *n*

**awe-struck-en** \ə-ˈstri:k-ən\ or **awe-struck** \-ˈstrək\ *adj*: filled with awe

**aw-ful** \ə-ˈfəl\ *adj* 1: inspiring awe 2: filled with awe: as a *obs*: TERRIFIED, AFRAID b: deeply respectful or reverential 3: extremely disagreeable or objectionable 4: exceedingly great — used as an intensive (~ chance) *syn* see FEARFUL

**awful** *adv*: AWFULLY, VERY, EXTREMELY

**aw-ful-ly** \ə-ˈfəl-ē\ *adv* 1 & 2, 'ō-flē in senses 3 & 4\ *adv* 1: in a manner to inspire awe 2 *archaic*: with a feeling of awe 3: in a disagreeable or objectionable manner 4: EXCEEDINGLY, EXTREMELY (an ~ hard rain)

**aw-ful-ness** \ə-ˈfəl-nəs\ *n*: the quality or state of being awful

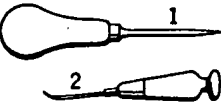
**awhile** \ə-ˈhwī(ə)\, ə-ˈwī(ə)\ *adv*: for a while

**awhirl** \ə-ˈhwər(ə)\, ə-ˈwər(ə)\ *adv* (or *adj*): in a whirl: WHIRLING

**awk-ward** \ə-ˈkwəd\ *adj* [ME *awkward* in the wrong direction, fr. *awke* turned the wrong way, fr. ON *ōfugr*: akin to OHG *abuh* turned the wrong way, L *opacus* obscure] 1 *obs* a: PERVERSE b: ADVERSE 2: lacking or showing lack of dexterity or skill esp. in the use of the hands or of instruments: CLUMSY 3 a: lacking ease or grace (as of movement or expression) b: appearing ill-proportioned, outsize, or poorly fitted together: UNGAINLY 4 a: lacking social grace and assurance b: causing embarrassment 5: poorly adapted for use or handling 6: requiring caution — **awk-ward-ly** *adv* — **awk-ward-ness** *n*

*syn* CLUMSY, MALADROIT, INEPT, GAUCHE: AWKWARD is widely applicable and may suggest unhandiness, inconvenience, lack of muscular control, embarrassment, lack of tact; CLUMSY implies stiffness and heaviness and so may connote inflexibility, unyieldingness, or lack of ordinary skill; MALADROIT, INEPT, and GAUCHE imply lack of mental or social dexterity; MALADROIT suggests a tendency to create awkward situations; INEPT suggests a lack of aptness leading to futile or absurd situations or prompting inane remarks and often implies complete failure or inadequacy; GAUCHE implies the effects of shyness, inexperience, or ill breeding

**awl** \ɔl\ *n* [ME *al*, fr. ON *alr*: akin to OHG *āla* awl, Skt *ārā*] a pointed instrument for marking surfaces or piercing small holes (as in leather or wood)



**awl-shaped** \ɔl-ˈshāpt\ *adj*: shaped like an awl; *specif*: being linear and tapering to a fine point

**aw-mous** \ə-ˈməs, ˈo-\ *n* [ME (northern dial.) *almouse*, fr. ON *almusa*, fr. OS *almōsa* or OHG *awls*: 1 ordinary, 2 sewing *alamuosan*] *Scot*: ALMS

**awn** \ɔn\ *n* [ME, fr. OE *agen*, fr. ON *agn*: akin to OHG *agana* awn, OE *ecg* edge — more at EDGE] 1: one of the slender bristles that terminate the glumes of the spikelet in some cereal and other grasses; broadly: a small pointed process — **awned** \ɔnd\ *adj*

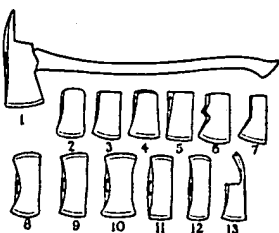
**awning** \ɔ-nɪŋ, ˈān-ɪŋ\ *n* [origin unknown] 1: a rooflike cover extended over or before a place (as over the deck of a ship or before a window) as a shelter 2: a shelter resembling an awning — **awninged** \-nɪŋd, -ɪŋd\ *adj*

**awn-less** \ɔn-ləs\ *adj*: lacking awns

**AWOL** \ə-ˈwɒl, ˈā-ˈdɒb-əl-yū, ˈō-ˈel\ *n*, often *not* cap [absent without leave]: one who is absent without leave — **AWOL** *adv* (or *adj*), often *not* cap

**awry** \ə-ˈrɪ\ *adv* (or *adj*) 1: turned or twisted toward one side 2: ASKEW 2: out of the right, expected, or hoped-for course: AMISS

**ax** or **axe** \aks\ *n* [ME, fr. OE *æcx*: akin to OHG *ackus* ax, L *ascia*, Gk *axinē*] 1: a cutting tool that consists of a heavy edged head fixed to a handle with the edge parallel to the handle and that is used esp. for felling trees and chopping and splitting wood 2: a hammer with a sharp edge for dressing or spalling stone 3: removal from office or employment: DISMISSAL (got the ~)



**ax** or **axe** *vt* 1 a: to shape, dress, or trim with an ax b: to chop, split, or sever with an ax 2: to remove, kill, or curtail as if with an ax

**axe-nic** \ˈ(ə-)zē-nɪk, ˈzē-nɪk\ *adj* [a- + Gk *xenos* strange] 1: free from other living organisms

**ax-i-al** \ˈak-sē-əl\ or **ax-al** \-səl\ *adj* 1: of, relating to, or having the characteristics of an axis 2: situated around, in the direction of, on, or along an axis

— **ax-i-al-i-ty** \ˈak-sē-əl-ə-tē\ *n* — **ax-i-al-ly** \ˈak-sē-əl-ē\ *adv*

**axial skeleton** *n*: the skeleton of the trunk and head

**ax-il** \ˈak-səl, -sɪl\ *n* [NL *axilla*, fr. L] 1: the angle between a branch or leaf and the axis from which it arises

**ax-ile** \-ˈsɪl\ *adj*: relating to or situated in an axis

**ax-il-la** \ˈak-sil-ə\ *n*, pl **ax-il-lae** \-ˈsil-(ə)-, -ɪ\ or **axillas** [L] — *ARMPIT*

**ax-il-lar** \ˈak-sil-ər, ˈak-sə-lər\ *n*: an axillary part (as a vein, nerve, or feather)

**ax-il-lary** \ˈak-sə-lər-ē\ *adj* 1: of, relating to, or located near the axilla 2: situated in or growing from an axil

**ax-ill-ary** *n*: AXILLAR; *esp*: one of the feathers arising from the axilla and closing the space between the flight feathers and body of a flying bird

**ax-i-o-log-i-cal** \ˈak-sē-ə-ˈlāj-i-kəl\ *adj*: of or relating to axiology — **ax-i-o-log-i-cal-ly** \-lɪ-k(ə)-lē\ *adv*

**ax-i-o-logy** \ˈak-sē-ˈāl-ə-jē\ *n* [Gk *axios* + ISV *-logy*]: the study of the nature, types, and criteria of values and of value judgments esp. in ethics

**ax-i-om** \ˈak-sē-əm\ *n* [L *axioma*, fr. Gk *axiōma*, lit., honor, fr. *axiō* to think worthy, fr. *axios* worthy, worthy; akin to Gk *agelō* to drive] 1: a maxim widely accepted on its intrinsic merit 2 a: a proposition regarded as a self-evident truth b: POSTULATE 1

**ax-i-om-at-ic** \ˈak-sē-ə-ˈmat-ik\ *adj* [MGk *axiōmatikos*, fr. Gk, honorable, fr. *axiōmat-*, *axiōma*]: of, relating to, or having the nature of an axiom — **ax-i-om-at-i-cal-ly** \-lɪ-k(ə)-lē\ *adv*

**ax-is** \ˈak-səs\ *n*, pl **ax-es** \-ˈsēz\ [L, axis, axle; akin to OE *eax* axis, axle, Gk *axōn*, L *axilla* armpit, *agere* to drive — more at AGENT] 1 a: a straight line about which a body or a geometric figure rotates or may be supposed to rotate b: a straight line with respect to which a body or figure is symmetrical c: a straight line that bisects at right angles a system of parallel chords of a curve and divides the curve into two symmetrical portions d: one of the reference lines of a coordinate system 2 a: the second vertebra of the neck that serves as a pivot for the head to turn on b: any of various central, fundamental, or axial parts 3: a plant stem 4: one of several imaginary lines assumed in describing the positions of the planes by which a crystal is bounded, the positions of atoms in the structure of the crystal, and the directions associated with vectorial and tensorial physical properties 5: a main line of direction, motion, growth, or extension 6 a: an implied line in painting or sculpture through a composition to which elements in the composition are referred b: a line actually drawn and used as the basis of measurements in an architectural or other working drawing 7: any of three fixed lines of reference in an airplane which are usu. centroidal and mutually perpendicular and of which the first is the principal longitudinal line in the plane of symmetry, the second is perpendicular to the first in the plane of symmetry, and the third is perpendicular to the other two — called also respectively *longitudinal axis*, *normal axis*, *lateral axis* 8: PARTNER-SHIP, ALLIANCE

**ax-ite** \-ˈsɪt\ *n*: AXON; also: one of its terminal branches

**ax-le** \ˈak-səl\ *n* [ME *axel* (as in *axeltree*)] 1 *archaic*: AXIS 2 a: a pin or shaft on or with which a wheel or pair of wheels revolves b (1): the spindle of an axletree (2): AXLETREE

**ax-le-tree** \-(ə)ˈtrē\ *n* [ME *axeltre*, fr. ON *ōxultre*, fr. *ōxull* axle + *trē* tree]: a fixed bar or beam with bearings at its ends on which wheels (as of a cart) revolve

**Ax-min-ster** \ˈak-smɪn(t)-stər\ *n* [Axminster, England]: a machine-woven carpet with pile tufts inserted mechanically in a variety of textures and patterns

**ax-o-lotl** \ˈak-sə-ˈlät-ɪ\ *n* [Nahuatl, lit., water doll]: any of several salamanders (genus *Ambystoma*) of mountain lakes of Mexico and the western U. S. that ordinarily live and breed without metamorphosing

**ax-on** \ˈak-sən\ also **ax-one** \-sən\ *n* [NL *axon*, fr. Gk *axōn*] 1: a usu. long and single nerve-cell process that as a rule conducts impulses away from the cell body — **ax-on-al** \ˈak-sən-əl\ or **ax-on-ic** \ˈak-sən-ik\ *adj*

**ax-o-no-met-ric projection** \ˈak-sə-nō-met-rik-ə\ *n*: a drawing projection by lines perpendicular to the drawing surface in which a rectangular solid appears as inclined and shows three faces

**ax-seed** \ˈaks(s)-sēd\ *n*: a European herb (*Coronilla varia*) that is naturalized in the eastern U. S. and has umbels of pink-and-white flowers and sharp-angled pods

**ay** \ˈɪ\ *interj* [MF *aym* ay me] — used usu. with following *me* to express sorrow or regret

**ayah** \ˈɪ-ə, ˈā-yə\ *n* [Hindi *āyā*, fr. Pg *ala*, fr. L *avla* grandmother] 1: a native nurse or maid in India

**aye** also **ay** \ˈā\ *adv* [ME, fr. ON *ei*: akin to OE *ā* always, L *aeuum* age, lifetime, Gk *aiōn* age]: EVER, ALWAYS, CONTINUALLY

**aye** also **ay** \ˈɪ\ *adv* [perh. fr. ME *ye*, *yle* — more at YEA]: YES

**aye** also **ay** \ˈɪ\ *n*, pl **ayes**: an affirmative vote or voter

**aye-aye** \ˈɪ-ɪ\ *n* [F. fr. Malagasy *aiay*]: a nocturnal lemur (*Daubentonius madagascariensis*) of Madagascar

**ayin** \ˈɪ-ən\ *n* [Heb *ayin*, lit., eye]: the 16th letter of the Hebrew alphabet — symbol *y*

**Ay-ma-ra** \ɪ-ˈmā-rā\ *n*, pl **Aymara** or **Aymar**as [Sp *aymará*] 1 a: an Indian people of Bolivia and Peru b: a member of this people 2 a: the language of the Aymara people b: a language family of the Kechumaran stock comprising Aymara

**Ayr-shire** \ˈ(ə)r-ʃi(ə)r-, -ʃər, ˈe(ə)r-, ˈash-, ɪ(ə)r\ *n* [Ayrshire, Scotland]: any of a breed of hardy dairy cattle originated in Ayr that vary in color from white to red or brown

**az-** or **azo-** *comb form* [ISV, fr. *azote*]: containing nitrogen esp. as the bivalent group — *N=N-* (*azine*)

**aza-lea** \ə-ˈzāl-yə\ *n* [NL, genus name, fr. Gk, fem. of *azaleos* dry; akin to L *aridus* dry — more at ARIDOR]: any of a genus or subgenus (*Azalea*) of rhododendrons with funnel-shaped corollas and usu. deciduous leaves including many species and hybrid forms cultivated as ornamentals

**Aza-zel** \ə-ˈzā-zəl, ˈaz-ə-zel\ *n* [Heb *ʾazāzēl*]: an evil spirit of the wilderness given a scapegoat by the ancient Hebrews in a ritual of atonement

**azide** \ˈaz-ɪd, ˈā-zɪd\ *n*: a compound containing the group *N<sub>3</sub>* combined with an element or radical — **az-i-dō** \ˈaz-ə-dō\ *adj*

**az-i-muth** \ˈaz-(ə)-məθ\ *n* [ME, fr. (assumed) ML, fr. Ar *as-sūmūt* the azimuth, pl. of *as-samt* the way] 1: an arc of the circle measured between a fixed point (as true north) and the vertical circle passing through the center of an object usu. in astronomy

of heavy isotopes; esp : water enriched in deuterium  
**heavy** \hev-ē, wāt\ *n* 1 : one above average in weight  
 2 : one in the heaviest class of contestants; as a : a boxer weighing over 175 pounds b : a wrestler weighing over 175 pounds  
**heb-dom** \heb-dō, mad\ *n* [L *hebdomad-*, *hebdomas*, fr. Gk, fr. *hebdomas* seventh, fr. *hepta* seven] : a group of seven  
**heb-dom-a-dal** \heb-dām-ad-əl\ *adj* : WEEKLY  
**heb-dom-a-dal-ly** \-l-ē\ *adv* : every week  
**hebe-** *comb form* [Gk *hēbē* youth — more at EPHEBUS] : puberty  
**he-be** \he-bē\ *n* [L, fr. Gk *Hēbē*] : the Greek goddess of youth  
**he-be-phre-nia** \he-bə-fre-nē-ə, -fren-ē-\ *n* [NL] : a schizophrenic reaction characterized by silliness, delusions, hallucinations, and regression — **he-be-phre-nic** \-fren-ik, -fren-ik\ *adj*  
**hebe-o-tate** \heb-ə, tāt\ *vi* [L *hebetatus*, pp. of *hebetare*, fr. *hebet-*, *hebes* dull] : to make dull or obtuse — **hebe-o-tation** \heb-ə-tā-shən\ *n*  
**hebe-o-tude** \heb-ə, (t)ūd\ *n* : DULLNESS, LETHARGY — **hebe-o-tu-dinous** \heb-ə-t(y)ūd-nəs, -n-əs\ *adj*  
**He-bra-ic** \hi-brā-ik\ *adj* [ME *Ebrayke*, fr. LL *Hebraicus*, fr. Gk *Hebraikos*, fr. *Hebraios*] : of, relating to, or characteristic of the Hebrews or their language or culture — **He-bra-i-cal-ly** \-brā-ə-k(ə)-lē\ *adv*  
**He-bra-ism** \hē-, (ə)brā-iz-əm\ *n* 1 : a Hebrew idiom occurring in another language 2 : the thought, spirit, or practice characteristic of the Hebrews 3 : the moral theory of life held to be characteristic of the Hebrews  
**He-bra-ist** \-brā-ist\ *n* : a specialist in Hebrew and Hebraic studies  
**He-bra-is-tic** \hē-brā-iz-tik\ *adj* 1 : HEBRAIC 2 : marked by Hebraisms  
**he-bra-ize** \hē-brā-iz\ *vb*, often *cap*, *vi* : to use Hebraisms ~ *vt* : to make Hebraic  
**He-brew** \hē-, (ə)brū\ *n* [ME *Ebreu*, fr. OF, fr. LL *Hebraeus*, fr. L, *adj*, fr. Gk *Hebraios*, fr. Aram *Ebrāi*] 1 : a member of or descendant from one of a group of northern Semitic peoples including the Israelites; esp : ISRAELITE 2 a : the Semitic language of the ancient Hebrews b : any of various later forms of this language — **Hebrew** *adj*  
**Hec-ate** \hek-ət-ē, archalē-ət\ *n* [L, fr. Gk *Hekātē*] : the goddess of the underworld in Greek mythology  
**hec-a-tomb** \hek-ə, tomb\ *n* [L *hecatombe*, fr. Gk *hekatombē*, fr. *hekatōn* hundred + *bous* cow — more at HUNDRED, COW] 1 : an ancient Greek and Roman sacrifice of 100 oxen or cattle 2 : the sacrifice or slaughter of many victims  
**heck-le** \hek-əl\ *vi* **heck-ling** \-(ə)lɪŋ\ [ME *hekelen*, fr. *heckele* hackle; akin to OHG *hako* hook — more at HOOK] : to harass and try to disconcert with questions, challenges, or gibes : BADGER **syn** see BAIT — **heck-ler** \-(ə)lɪr\ *n*  
**hect- or hecto-** *comb form* [F, irreg. fr. Gk *hekatōn*] : hundred (*hectograph*)  
**hect-are** \hek-, (tə)r, -te(r), -tār\ *n* [F, fr. *hect-* + *are*] — see METRIC SYSTEM table  
**hec-tic** \hek-tik\ *adj* [ME *etyk*, fr. MF *etique*, fr. LL *hecticus*, fr. Gk *hektikos* habitual, compulsive, fr. *hekt-* (akin to *echēn* to have) — more at SCHEME] 1 : of, relating to, or being a fluctuating but persistent fever (as in tuberculosis) 2 : having a hectic fever 3 : FLUSHED, RED 4 : marked by feverish activity : RESTLESS — **hec-ti-cal-ly** \-t(ə)k(ə)-lē\ *adv*  
**hec-to-gram** \hek-tə, gram\ *n* [F *hectogramme*, fr. *hect-* + *gramme* gram] — see METRIC SYSTEM table  
**hec-to-graph** \hek-tə, graf\ *n* [G *hektograph*, fr. *hekto-* *hect-* + *-graph*] : a machine for making copies of a writing or drawing — **hectograph** *vi* — **hec-to-graph-ic** \hek-tə-graf-ik\ *adj*  
**hec-to-li-ter** \hek-tə, līt-ər\ *n* [F *hectolitre*, fr. *hect-* + *litre* liter] — see METRIC SYSTEM table  
**hec-to-me-ter** \hek-tə, mēt-ər, hek-tām-ət-ər\ *n* [F *hectomètre*, fr. *hect-* + *mètre* meter] — see METRIC SYSTEM table  
**hec-tor** \hek-tər\ *n* [L, fr. Gk *Hektōr*] 1 *cap* : a son of Priam, husband of Andromache, and bravest of the Trojans in Homer's *Iliad* 2 : BULLY, BRAGGART  
**hector** *vb* **hec-tor-ing** \-(ə)riŋ\ *vi* : to play the bully : SWAGGER ~ *vt* : to intimidate by bluster or personal pressure **syn** see BAIT  
**hec-u-ba** \hek-yə-bə\ *n* [L, fr. Gk *Hekabē*] : the wife of Priam and mother of Hector in Homer's *Iliad*  
**hed** \hed, ēd\ *n* : he had : he would  
**hed-dle** \hed-əl\ *n* [prob. alter. of ME *helde*, fr. OE *hefeld*; akin to ON *hafald* heddle, OE *hebban* to lift — more at HEAVE] : one of the sets of parallel cords or wires that with their mounting compose the harness used to guide warp threads in a loom  
**hed-der** \kād-ər, ked-əl\ *n* [Yiddish *kheyder*, fr. Heb *hedher* room] : an elementary Jewish school in which children are taught to read the Pentateuch, the Prayer Book, and other books in Hebrew  
**hedge** \hej\ *n* [ME *hegge*, fr. OE *hecg*; akin to OE *haga* hedge, hawthorn, L *colum* sieve] 1 a : a fence or boundary formed by a dense row of shrubs or low trees b : BARRIER, LIMIT 2 : a means of protection or defense (as against financial loss) 3 : a calculatedly noncommittal statement  
**hedge** *vi* 1 : to enclose or protect with or as if with a hedge : ENCIRCLE 2 : to hem in or obstruct with or as if with a barrier : HINDER 3 : to protect oneself from losing by a counterbalancing transaction (~ a bet) ~ *vi* 1 : to plant, form, or trim a hedge 2 : to evade the risk of commitment esp. by leaving open a way of retreat : TRIM 3 a : to protect oneself financially; *specif* : to buy or sell commodity futures as a protection against loss due to price fluctuation b : to minimize the risk of a bet — **hedg-er** *n*  
**hedge** *adj* 1 : of, relating to, or designed for a hedge 2 : born, living, or made near or as if near hedges : ROADSIDE 3 : INFERIOR  
**hedge-hog** \hej-hog, -häg\ *n* 1 a : any of a genus (*Erinaceus*) of Old World nocturnal insectivorous mammals having both hair and spines that they present outwardly by rolling themselves up b : any of several spiny mammals (as a porcupine) 2 : a military defensive obstacle or stronghold  
**hedge-hop** \-həp\ *vi* [back-formation fr. *hedgehopper*] : to fly an airplane close to the ground and rise over obstacles as they appear — **hedge-hop-per** *n*  
**hedge-pig** \-pig\ *n* : HEDGEHOG  
**hedge-row** \-rō\ *n* : a row of shrubs or trees enclosing or separating fields

**he-don-ic** \hi-dān-ik\ *adj* 1 : of, relating to, or characterized by pleasure 2 : HEDONISTIC  
**he-don-ism** \hēd-ən-iz-əm\ *n* [Gk *hēdonē* pleasure; akin to Gk *hēdys* sweet — more at SWEET] 1 : the doctrine that pleasure or happiness is the sole or chief good in life — compare PSYCHOLOGICAL HEDONISM 2 : a way of life based on or suggesting the principles of hedonism — **he-don-ist** \-n-ist\ *n* — **he-don-is-tic** \hēd-ən-iz-tik\ *adj*  
**hedonistic calculus** *n* : a method of determining the rightness of an action by balancing the pleasures and pains that it would produce  
**he-dral** \hē-dral\ *adj* *comb form* [NL *hedron*] : having (such) a surface or (such or so many) surfaces (*dihedral*)  
**he-dron** \hē-drən\ *n* *comb form*, *pl* **hedrons** or **he-dra** \-dra\ [NL, fr. Gk *edron*, fr. *hedra* seat — more at SIT] : crystal or geometrical figure having a (specified) form or number of surfaces (*pentahedron* [trapezohedron])  
**hee-bie-jee-bies** \hē-bē-je-bēz\ *n* *pl* [coined by Billy DeBeck] : JITTERS  
**heed** \hēd\ *vb* [ME *heeden*, fr. OE *hēdan*; akin to OHG *huota* guard] *vi* : to pay attention ~ *vi* : to concern oneself with  
**heed** *n* : ATTENTION, NOTICE  
**heed-ful** \hēd-fəl\ *adj* : taking heed : CAREFUL — **heed-ful-ly** \-fəl-ē\ *adv* — **heed-ful-ness** *n*  
**heed-less** \-ləs\ *adj* : not taking heed : CARELESS — **heed-less-ly** *adv* — **heed-less-ness** *n*  
**hee-haw** \hē-, hō\ *n* [imit.] 1 : the bray of a donkey 2 : a loud rude laugh : GUFFAW — **hee-haw** *vi*  
**heel** \hē(ə)\ *n* [ME, fr. OE *hēla*; akin to ON *hēll* heel, OE *hōh* — more at HOCK] 1 a : the back of the human foot below the ankle and behind the arch b : the back of the hind limb of other vertebrates homologous with the human heel 2 : an anatomical structure suggestive of the human heel 3 a : one of the crusty ends of a loaf of bread b : one of the rind ends of a cheese 4 a : the part (as of a shoe) that covers the human heel b : a solid attachment of a shoe or boot forming the back of the sole under the heel of the foot 5 : a rear, low, or bottom part; as a : the after end of a ship's keel or the lower end of a mast b : the base of a tuber or cutting of a plant used for propagation c : the base of a ladder 6 : a contemptible person — **heel-less** \hē(ə)-ləs\ *adj* — **by the heels** : in a tight grip — **down at heel** or **down at the heel** : in or into a run-down or shabby condition — **to heel** 1 : close behind 2 : into agreement or line — **under heel** : under control or subjection  
**heel** *vi* 1 a : to furnish with a heel b : to supply esp. with money 2 : to exert pressure on, propel, or strike with the heel ~ *vi* : to move along at the heels of someone  
**heel** *vb* [alter. of ME *heelden*, fr. OE *hieldan*; akin to OHG *hald* inclined, Lith *šalis* side, region] *vi* : to tilt to one side : TIP, LIST ~ *vi* : to cause to list  
**heel** *n* : LIST; also : the extent of a list  
**heel-and-toe** \hē-lən-tō\ *adj* : marked by a stride in which the heel of one foot touches the ground before the toe of the other foot leaves it  
**heel-er** \hē-lər\ *n* 1 : one that heels 2 a : a henchman of a local political boss b : a worker for a local party organization; esp : WARD HEELER  
**heel-piece** \hē(ə)-pēs\ *n* : a piece designed for or forming the heel  
**heel-post** \-pōst\ *n* : a post to which a gate or door is hinged  
**heel-tap** \hē(ə)-təp\ *n* : a small quantity of liquor remaining (as in a glass after drinking)  
**heft** \heft\ *n* [irreg. fr. *heave*] 1 : WEIGHT, HEAVINESS 2 *archaic* : BULK  
**heft** *vi* 1 : to heave up : HOIST 2 : to test the weight of by lifting  
**hefty** \hef-tē\ *adj* 1 : quite heavy 2 a : marked by bigness, bulk, and usu. strength b : POWERFUL, MIGHTY c : impressively large  
**he-gari** \hi-gar-ē, -ger-\ *n* [Ar (Sudan) *hegiri*] : any of several Sudanese grain sorghums having chalky white seeds including one grown in the southwestern U.S.  
**He-ge-li-an** \hā-gā-lē-ən\ *adj* : of, relating to, or characteristic of Hegel, his philosophy, or his dialectic method — **Hegelian** *n*  
**He-ge-li-an-ism** \hē-gē-ə-niz-əm\ *n* : the philosophy of Hegel that equates the rational and the real and that uses dialectic to comprehend an absolute idea of which phenomena are partial representations  
**he-ge-mo-ny** \hi-jem-ə-nē, -hej-ə-, mō-nē\ *n* [Gk *hēgemonia*, fr. *hēgemon* leader, fr. *hēgeisthai* to lead — more at SEEK] : preponderant influence or authority esp. of one nation over others  
**he-gi-ra** also **he-jī-ra** \hi-jī-rā, -hej-(ə)-rā\ *n* [the *Hegira*, flight of Muhammad from Mecca in A.D. 622, fr. ML, fr. Ar *hijrah*, lit., flight] : a journey esp. when undertaken to seek refuge away from a dangerous or undesirable environment : EXODUS  
**Hei-del-berg** man \hīd-əl-, bərg-, -be(ə)rg-\ *n* [Heidelberg, Germany] : an early Pleistocene man known from a massive fossilized jaw with distinctly human dentition  
**heil-er** \hef-ər\ *n* [ME *hayfare*, fr. OE *hēahfore*] : a young cow; esp : one that has not had a calf  
**heigh** \hī, -hā\ *interj* [origin unknown] : HEY  
**heigh-ho** \-hō\ *interj* — used typically to express boredom, weariness, or sadness or sometimes as a cry of encouragement  
**height** \hit, -hīt\ *n* [ME *heighthe*, fr. OE *hiehtu*; akin to OHG *hōhida* height, OE *hēah* high] 1 a : the highest part : SUMMIT b : the highest or most advanced point : ZENITH 2 a : the distance from the bottom to the top of something standing upright b : the extent of elevation above a level : ALTITUDE 3 : the condition of being tall or high 4 a : an extent of land rising to a considerable degree above the surrounding country b : a high point or position 5 *obs* : an advanced social rank 6 : degree of geographical latitude  
**syn** STATURE, ELEVATION, ALTITUDE : HEIGHT may be used of any vertical distance great or small; STATURE applies only to animal bodies, esp. to the mature human body; ELEVATION and ALTITUDE imply height practically determined only by angular measurement or atmospheric pressure  
**height-en** \hit-ən\ *vb* **height-en-ing** \hit-niŋ, -n-ŋ\ *vt* 1 a : to increase the amount or degree of : AUGMENT b : to make brighter or more intense : DEEPEN c : to bring out more strongly : point up d : to make more acute : SHARPEN 2 a : to raise high or higher : ELEVATE b : to raise above the ordinary or trite 3 *obs* : ELATE ~ *vi* 1 *archaic* : GROW, RISE 2 a : to become great or greater in

ə abut; ɔ kitten; ɛr further; a back; ʌ bake; ʌ cot, cart; aʊ out; ɔ chin; ɛ less; ɛ easy; ɡ gift; ɪ trip; ɪ life; ɪ joke; ɪ sing; ɔ flow; ɔ flaw; ɔ coin; ʈ thin; ʈ this; ʊ foot; ʊ foot; y yet; yū few; yū furious; zh vision